DOCUMENT RESUME

ED 403 315 TM 026 050

TITLE	International Adult Literacy.
INSTITUTION	Educational Testing Service, Princeton, NJ. Policy Information Center.
PUB DATE	96
NOTE	14p.; This issue of "ETS Policy Notes" is a condensation of "Literacy, Economy and Society: Results of the First International Adult Literacy Survey" published by the Organization for Economic Cooperation and Development and Statistics, Canada.
PUB TYPE	Reports - Evaluative/Feasibility (142) -- Collected Works - Serials (022)
JOURNAL CIT	ETS Policy Notes; v1 n1 Sum 1996
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Adult Literacy; Comparative Analysis; *Economic Factors; *Educational Policy; Employment Patterns; Foreign Countries; Income; International Education; International Studies; Labor Force; Outcomes of Education; *Socioeconomic Status
IDENTIFIERS	*International Adult Literacy Survey; *Life Chances

ABSTRACT

Systematic knowledge about the dimensions and levels of literacy and information about its distribution are prerequisites for forming good educational policy. This issue discusses the conduct and findings of the International Adult Literacy Survey (IALS). The IALS was not intended to rank literacy skills across countries, but was intended to make the exploration of differences across countries possible. Participating were: (1) Canada; (2) Germany; (3) the Netherlands; (4) Poland; (5) Sweden; (6) French-speaking Switzerland; (7) German-speaking Switzerland; and (8) the United States. In all participating countries, employment was positively related to literacy, and in all cases there was a clear and direct effect of literacy on wages and income. Industries that have grown in the last 20 years are those in which the incumbents had the highest literacy scores. In spite of these similarities, the relationship between education and literacy was not the same in every country or from scale to scale, making direct comparisons impossible. Differences in literacy practices reflected the countries' different occupational distributions. In countries where the average literacy scores were highest, the greatest use of literacy-related tasks was reported. The information provided by the IALS has made a start in demonstrating the strong association between literacy and life chances while indicating that literacy is not synonymous with educational attainment. (Contains six figures.) (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 403 315

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
F. COLEY
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

INTERNATIONAL ADULT LITERACY

BEST COPY AVAILABLE

TM026050

ETS POLICY NOTES

News from the ETS Policy Information Center

Volume 7, Number 1 · Educational Testing Service, Princeton, New Jersey · Summer 1996

Literacy: Economic Key for the New Millennium

Recent developments such as NAFTA and the Maastricht Treaty, which established the European market, have opened the doors to world trade. Globalization is not new, but until now shifts in the relative comparative advantage of nations have occurred slowly and gradually. As the new millennium approaches, major shifts that influence the competitiveness of nations are likely to occur much more quickly.

Certain countries, firms, and individuals are well positioned to compete successfully in global markets; others may have difficulty taking advantage of the opportunities. A massive reallocation of labor is expected to occur as Organization for Economic Cooperation and Development (OECD) countries try to adapt and maintain their economic positions.

Traditional job and career patterns are dissolving as the knowledge content of jobs evolves and the need for low-skill workers fades. As businesses and labor markets change, some jobs become obsolete and new ones, likely requiring more literate workers, are created. In this environment of change people will need to be prepared to change jobs, perhaps many times. Thus, lifelong learning and literacy become key.

Lifelong learning is an important means of acquiring new competencies and qualifications, but adequate foundation skills are critical. Governments can no longer rely on policies of expanding school enrollments and improving educational systems to meet the demands of new and high-level competencies generated by the economy. Because literacy has an effect on the ability of workers to learn efficiently and to be flexible in learning, it also has an effect on the rate at which a culture of lifelong learning can be realized. For some, it is the sine qua non of workplace learning.

According to the OECD, the best way of exploiting the new economic environment is to strengthen the capacity of businesses and labor markets to adjust to change, improve their productivity, and capitalize on innovation. But these capacities depend first and foremost on the knowledge and skills of the population. People are the key resource and their level of literacy is a powerful determinant of a country's innovative and adaptive capacity.

Cultivating and developing literacy should be an important element in every country's long-term policy strategies. Systematic knowledge about the dimensions and levels of literacy and sound information about its distribution in the population are prerequisites for forming good policy. The International Adult Literacy Survey (IALS), which is summarized in this issue of *ETS Policy Notes*, was an effort to begin providing such information.

This Issue: International Adult Literacy

- Literacy: Economic Key for the New Millennium
- Distribution of Literacy and Related Factors
- The Practices of Literacy
- Conclusions

Editor's Note: This issue of *ETS Policy Notes* is a condensation of *Literacy, Economy and Society: Results of the First International Adult Literacy Survey*, published by the Organization for Economic Cooperation and Development and Statistics Canada. Unless otherwise noted, all data are drawn from that report. Copies can be ordered for $40 from:

OECD Publications & Information Center
2001 L Street, NW, Suite 650
Washington, DC 20036-4910
Phone - 202-785-6323
Fax - 202-785-0530

BEST COPY AVAILABLE

The Distribution of Literacy and Related Factors

The countries involved in the IALS differ in their demographic makeup, their educational systems, and their employment opportunities. Thus, it was not the purpose of the IALS to rank literacy skills across countries. It is instructive, however, to explore the differences among countries with respect to literacy measures and to examine factors related to literacy skills. These factors include those that lead to literacy, such as education, and those that might be thought of as consequences of literacy, such as income and occupation. This section of the newsletter describes the distribution of literacy — prose, document, and quantitative — in the participating countries and illustrates the relationship between literacy and these other factors.

Results

Figure 1 shows the distribution of literacy in each participating country. The graphs present the estimated percentage of each country's population at each level on each of the three literacy scales.[1]

Some interesting findings include:

- Canada and the United States have quite similar distribution patterns, though the United States has a slightly larger proportion of its population at Level 1. What distinguishes both countries is that both have relatively large percentages of their population at Level 1 and at Level 4/5. In both countries, there are larger proportions of the population at Level 1 on the document scale than at Level 1 on the other two scales. Likewise, Canada has larger percentages of its population at Level 4/5 on the document scale than on the prose and quantitative scales, while the United States has smaller percentages at Level 4/5 on the document scale than on the other two scales.

- Germany demonstrates considerable variation across scales, particularly when comparing the proportion of its population at Level 4/5 on the prose scale with the percentage of the population at Level 4/5 on the quantitative scale.

- The Netherlands shows great internal consistency across scales, with an especially large percentage at Level 3 on all three scales. As in Germany, the percentage at Level 4/5 on the prose scale is smaller than the percentage at this level on the other two scales.

- Sweden has substantial proportions of its population in each of the higher levels on all three scales.

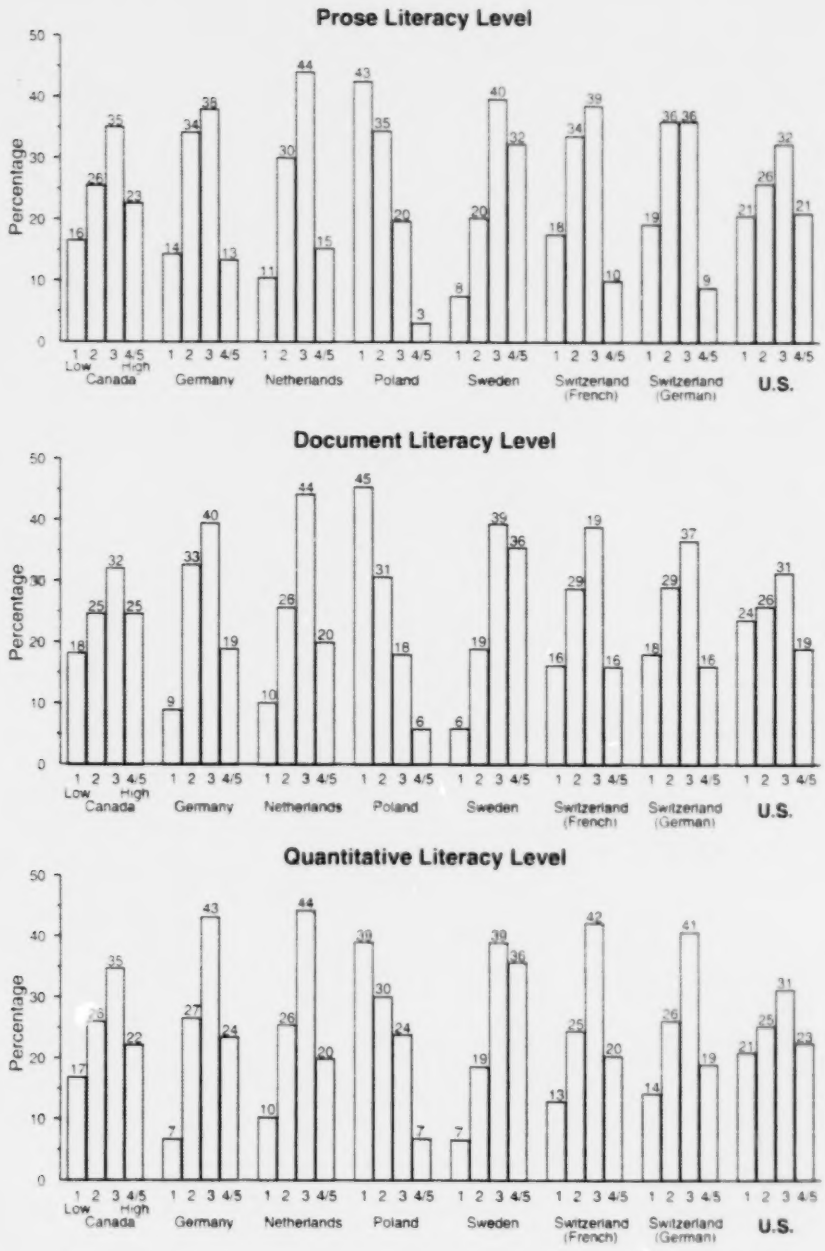
- The two language groups in Switzerland (French and German) show few differences. There are substantial percentages at Level 3 on all three scales, and there is a large proportion at the higher levels on the quantitative scale. In this way, Switzerland is similar to the Netherlands and Germany.

Employment

In all the participating countries, employment is positively related to literacy — those employed are more likely to be at a higher literacy level than those who are unemployed. In all eight countries, a very small percentage of individuals at Levels 3 and 4/5 find themselves unemployed, while a large proportion of those at Level 1 are without work. The proportion at Level 1 who are unemployed is comparatively large in Germany, Sweden, and Poland. These data show clearly that literacy and employment are strongly linked.

[1] Literacy is defined in terms of three domains — prose, document, and quantitative. In each of the three domains, a scale from 0 to 500 was constructed. For analytical purposes it is useful to group people into five levels of literacy, corresponding to ranges of scores achieved (e.g., Level 1, the lowest literacy level, includes scores from 0 to 225). Because the proportion at Level 5 is under 5 percent in most countries, Levels 4 and 5 have been combined in the IALS report.

Figure 1. Distribution of Population by Literacy Level - Prose, Document, and Quantitative Scales



Income

In all the countries there is a clear direct effect of literacy on wage income. Individuals at Level 1 are much more likely than those at other skill levels to have no income. At the same time, those at Level 4/5 are more likely to be in the high-income group. But it is also important to point out that individuals performing at Level 3 are also likely to have relatively high incomes.

Occupation

There is a consistent and expected relationship between literacy and occupation, and there are also some interesting differences across the scales for particular occupations.

- ***Manager/Professional*** is predominantly a high-skill group with 60 to 75 percent at Levels 3 and 4/5. This group usually does better on the document and quantitative scales, compared to the prose scale.

- ***Technician*** is also a high-skill occupation, although there are more technicians than managers and professionals at Level 2, and fewer technicians at Level 4/5.

- ***Clerks*** display higher literacy skills than those shown by other occupations with similar educational qualifications, such as sales, service, skilled craft workers, and machine operators. However, the largest proportion of clerks are at Levels 2 and

BEST COPY AVAILABLE

3, not at Level 4/5, suggesting that the highest level of literacy skill is not required for the kind of tasks clerks regularly perform.

- ***Sales and Service*** workers are probably the most heterogeneous group — there are usually some of these workers at each literacy level; and in some countries there are significant proportions in Level 4/5.

- ***Skilled Craft*** workers show noticeable differences from country to country. In the United States and Canada, between 25 and 30 percent are at Level 1 on the document scale, but in Germany only 7 percent are at this level. Entry into craft occupations in North America is relatively easy and unregulated, in contrast to Europe, where these occupations are usually subject to more rigorous entry requirements and/or certification based on demonstrated skill.

- ***Machine Operators*** have skill levels similar to those of skilled craft workers when the latter are relatively low-skilled (as in North America). However, they have lower skill levels when craft work is subject to certification (as in Germany). In particular, machine operators tend to have lower skills on the quantitative and document scales than on the prose scale.

- ***Agricultural and Primary*** occupations have the lowest demonstrated literacy skills. This is particularly noticeable in countries with larger agricultural sectors, such as Poland.

Industry

There is an interesting and important relationship between literacy and changes in employment opportunity within different types of industries. In participating countries, those industries that have grown in the last 20 years, such as financial and personal services, are those where the incumbents have the highest average scores. At the same time, industries in decline, especially agriculture, are characterized by workers with the lowest average literacy skill. The IALS data document the growth in skill demand in the changing industrial economies.

Reserve Labor Force

For an economy to grow there should be a source of skilled workers to fill the jobs in the growth industries. Sources include students leaving school, the unemployed, and those out of the workforce who might be attracted back in. In every country large proportions of this group are at Level 1, and in many countries the percentage of the reserve force at Level 4/5 is about the same as the percentage of unemployed at that level; Sweden is the notable exception. In certain countries, a large proportion of the population outside the labor force is at Level 3 (Germany and the German-speaking group in Switzerland have over 40 percent at this level), suggesting that these countries do have a resource that might be available if conditions were right. Canada, the United States, and Poland would seem to have the smallest reserve resource; in all three countries, over 30 percent of this group is at Level 1.

Full-time Versus Part-time Work

Part-time workers can be a potential source of skilled workers if they are not less skilled than full-time workers. There is no systematic relationship between literacy skill and whether an individual is employed full- or part-time. On some scales, in some countries, full-time workers have slightly larger proportions at the higher skill levels; on the other scales, often in the same country, there are also large proportions of part-time workers at the higher skill levels. There are two possible reasons for this. First, many part-time workers may be students. Second, child care or other family responsibilities may limit working hours.

Adult and Continuing Education

The data point to considerable similarity between countries both in terms of the proportion of the

workforce that receives training and in the way training is distributed by literacy skill. Poland is a clear exception — the proportion reporting having received any training is notably small. With the exception of Poland, the more skilled a person is, the more likely he or she has had some training. The majority of those at Level 4/5 had some training opportunity; only in Sweden did those at Level 1 have similar training opportunities.

Immigration

With the exception of Canada, immigrants account for higher proportions at Level 1 and lower proportions at Level 4/5. In Switzerland and the United States, immigrants are more likely to have lower educational attainment than those born in the country, but proportions with low levels of education are similar for both native-born and foreign-born residents in Germany, the Netherlands, and Sweden. At the same time, there is little difference in any of these countries between immigrants and native-born residents in the proportion with tertiary education. In these cases, other explanations, such as language or culture, are necessary.

Education

Because the IALS countries have quite different patterns of educational attainment, it should be expected that these differences play some role in the differences in literacy, since there is a strong relationship between education and literacy. But education is not, by itself, a satisfactory or simple proxy for literacy. Not only does every country have some proportion of its least-educated population at Level 3 and Level 4/5 on each literacy scale (and some of its most educated at Level 1), but the relationship between education and literacy is not the same in every country and not the same from scale to scale. Thus, comparisons based solely on educational attainment may incorrectly estimate true skill differences.

Parent Education

While there is a relationship between parent education and tested literacy, that relationship is not the same in all cases. For example, more Canadians than Germans whose parents have relatively low levels of education nonetheless attain Level 4/5. It is also worthwhile noting that the IALS countries are quite varied in parents' education.

Age

Education is not only distributed differently among the countries, but it is also distributed differently by age within each country. Literacy is related to age independently of education as well. The relationship between age and literacy is slightly more complex than the relationship between education and literacy. In all countries except the United States, at older ages, the proportion at Level 1 is larger on all three scales. It is generally the case that fewer — in many cases significantly fewer — young adults are at the lowest level on any scale. This does not mean, however, that proportionately more young adults are at Level 4/5. The mixed results seen in these data demonstrate that adult literacy is a result not just of school experience, but also of life experience. This implies that the IALS results are not an appropriate measure of school effectiveness, but rather a measure of the culture of literacy in a particular society. It is safe to say that in all countries the proportion of young adults who will be entering the workforce, on average, have notably higher skill levels than older workers who will be retiring.

Gender

The data show that there is a gender effect, small in some countries, large in others, but that effect is not the same on all the scales or for all countries. In general, as one moves across prose to document to quantitative scales, men's scores increase relative to women's. In some countries, women's scores decrease through this progression of scales, but even when they do increase they do so more slowly than those of men. The predominant explanation for these differences points to different patterns of course enrollments in school.

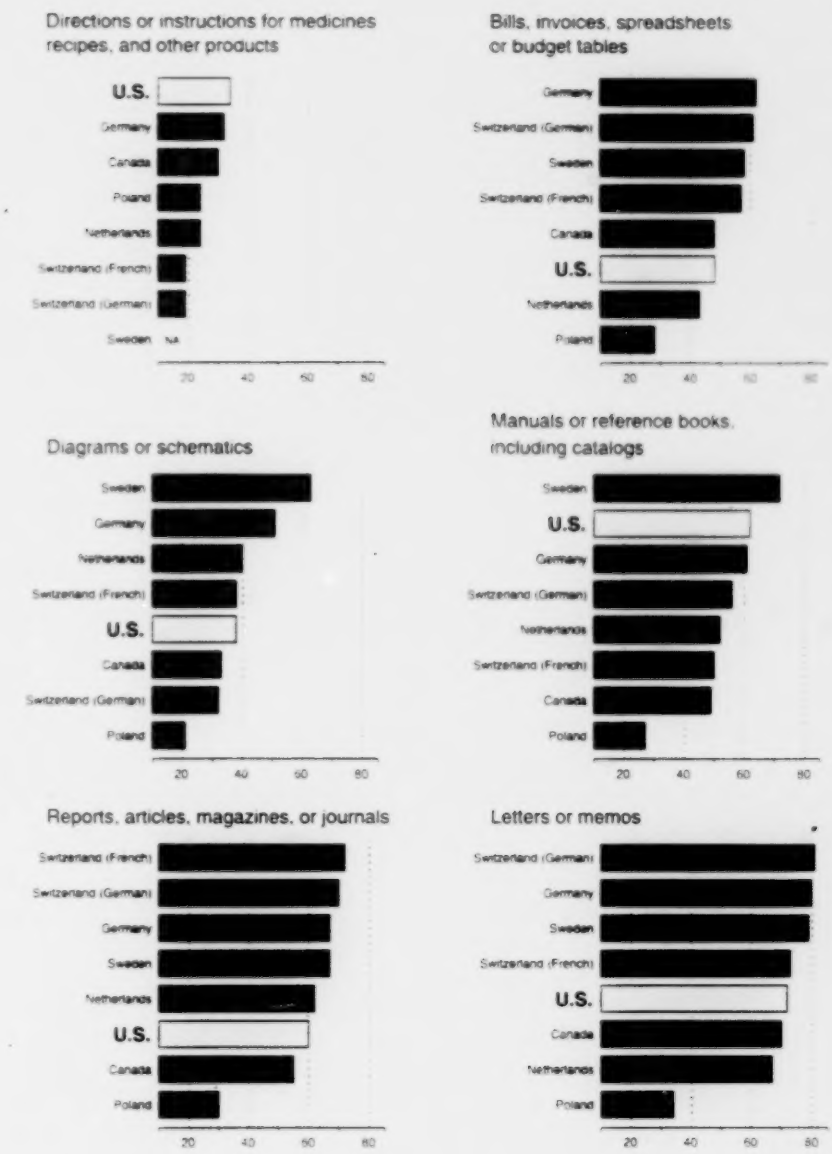
The Practices of Literacy

The IALS collected a broad range of information about the literacy practices and other daily activities of the respondents and provided new insights into the differences in the distribution of literacy within and among participating countries. This article discusses literacy practices at work and in the community. Bar charts show the overall frequency for each literacy activity across the participating countries. Within each section, the relationship between literacy level and both literacy activity and occupation is briefly discussed.

In general, there are differences among the countries in the frequencies reported for the different literacy tasks, but these differences are mostly consistent from task to task. Swedish respondents almost always reported the most frequent use of literacy tasks at work and Polish respondents the least frequent.

These differences reflect the countries' different occupational distributions. In general, respondents in Poland reported using all the literacy skills the least, and this country — at least among the survey countries — has the largest proportion of workers in the occupations requiring the fewest literacy skills: agriculture and other primary occupations. At the same time, Poland recorded the smallest proportions in the occupations requiring the most

Figure 2. Proportion of Population in Each Country Who Reported Engaging in Various Workplace Reading Tasks at Least Once a Week



frequent use of literacy: managers, technicians, and clerks.

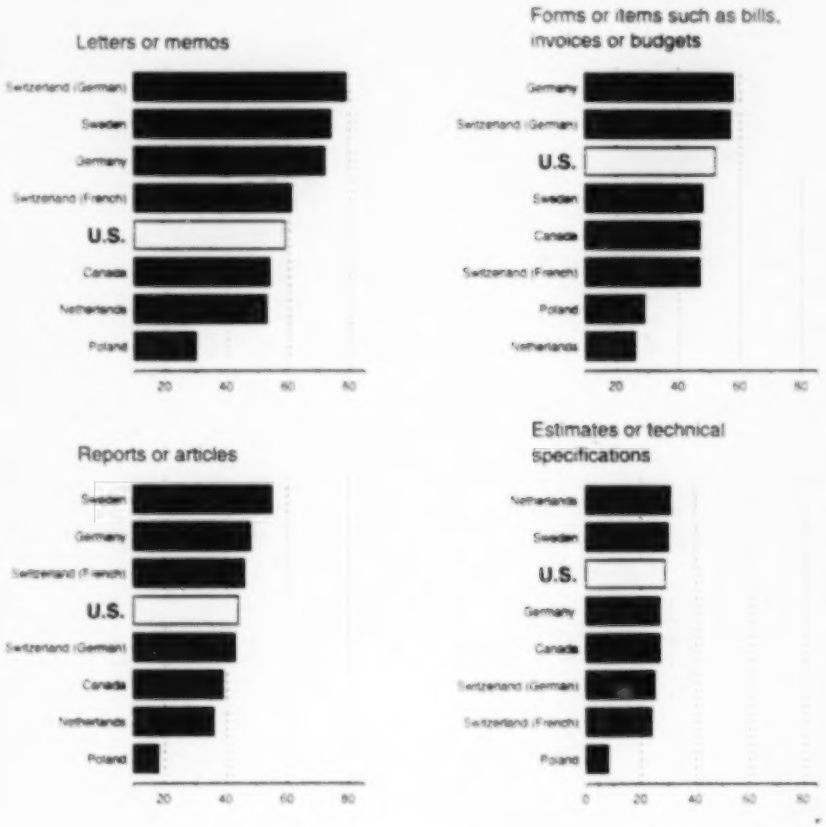
Literacy at Work

Reading. Respondents were asked how frequently they read or used information from six types of texts as part of their job — directions or instructions for medicines, recipes, and other products; bills, invoices, spreadsheets, or budget tables; diagrams or schematics; manuals or reference books, including catalogs; reports, articles, magazines, or journals; and letters or memos. The proportion of the population in each participating country who reported engaging in these workplace reading tasks at least once a week is shown in Figure 2.

There is a general tendency, across countries, scales, and tasks, for individuals at higher literacy skill levels to report that they carry out a practice more frequently. For example, in Poland only 18 percent of those at Level 1 on the document scale reported reading directions at least once a week, but 46 percent of those at Level 4/5 reported doing so. The differences are even larger for tasks that are likely to involve more complex texts, such as using manuals and reference books.

The frequency of reading tasks varies by occupation, as should be expected. In French-speaking Switzerland, for example, 83 percent of the clerks reported reading memos and letters at least once a week, but only 54 percent of the skilled craft workers said they read those materials that frequently. Also in French-speaking Switzerland, 68 percent of clerks reported working with bills or invoices weekly, while 55 percent of the technicians said that they did. In contrast, 42 percent of the technicians, compared with 23 percent of the clerks, reported using schematics and diagrams this often. Overall, the occupational category with the highest reported frequencies across tasks is the professional/management group. Clerks and technicians reported the second most frequent use for many tasks.

Figure 3. Proportion of Population in Each Country Who Reported Engaging in Each of Several Workplace Writing Tasks at Least Once a Week



Writing. Respondents were asked how often they wrote or filled out four types of text as part of their job — letters or memos; forms or items such as bills, invoices, or budgets; reports or articles; and estimates or technical specifications. Overall frequencies for each country are shown in Figure 3.

BEST COPY AVAILABLE

In some countries there is little difference reported among those at Levels 2, 3, and 4/5 on writing estimates and on working on bills and invoices. In contrast, in all surveyed countries respondents at Level 4/5 are considerably more likely than those at Level 2 to write letters and memos; they are also somewhat more likely to write reports and articles. As the task becomes more complex there is a stronger relationship between frequency and literacy level.

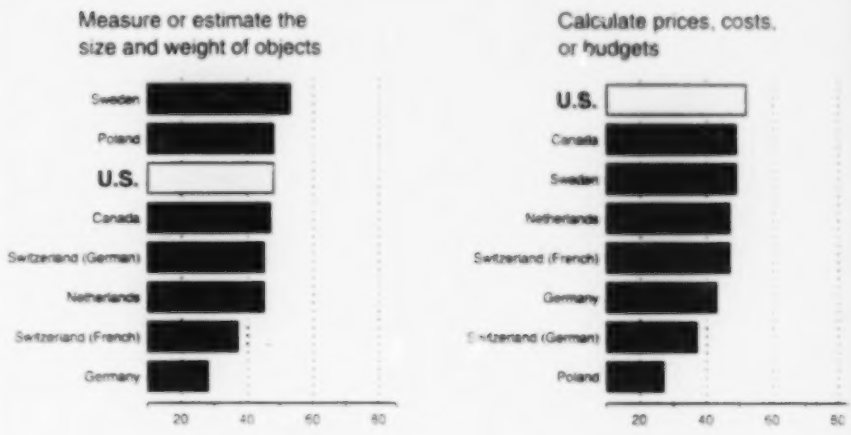
As was the case with the reading tasks, there are differences among occupations in writing frequency. Professionals and managers, technicians, and clerks reported the most frequent use of a variety of tasks. Notably, clerks are more likely than any of the other occupations to process bills or invoices; and service workers reported as much use of these kinds of tasks as professionals/managers and technicians.

Mathematics. IALS respondents were asked to report how often they engaged in two workplace numeracy tasks — measuring or estimating the size and weight of objects and calculating prices, costs, or budgets. The overall frequencies for each country are shown in Figure 4.

There are some interesting correlational differences between these two activities. Level 1 respondents reported using measurement math more often than budget math, though the overall frequencies of the two types of math are similar in most of the countries. Correspondingly, those at Level 4/5 reported using budget math more frequently than measurement math. The proportions for the two sets of math tasks are almost identical in both Level 2 and Level 3, although higher frequencies were uniformly reported for Level 3, compared with Level 2.

Clerks and service workers, as might be expected, reported using budget math more frequently. On the other hand, skilled craft workers, machine operators, and agricultural workers reported using measurement math more frequently. Technicians and professionals and managers reported similar frequencies for the two types of math.

Figure 4. Proportion of Population in Each Country Who Reported Engaging in Each of Two Workplace Numeracy Tasks at Least Once a Week

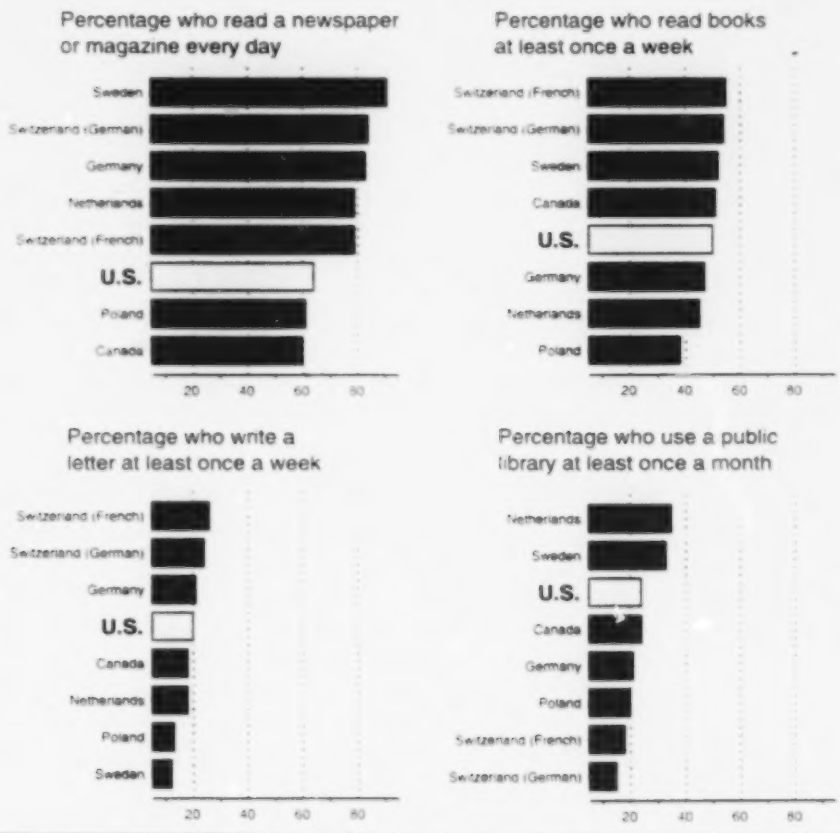


Literacy in the Community

Literacy activities. Much literacy activity takes place outside the workplace. The IALS asked respondents a variety of questions about their everyday literacy practices and their participation in other social and community activities — newspaper reading, book and magazine reading, letter writing and library use. The overall frequencies are shown in Figure 5

The overall frequency data are from unpublished computer runs conducted by Educational Testing Service.

Figure 5. Proportion of Population in Each Country Who Reported Engaging in Various Literacy Activities



Daily newspaper or magazine reading is fairly common in all of the surveyed countries, although less so in countries with large numbers of second-language speakers (Canada, the United States, and Switzerland). Literacy level has only a small effect on newspaper and magazine reading, probably because this task covers a broad range of skills.

Less common are literacy activities that might be thought of as less functional, or "more literate," than reading newspapers. Fifty-five percent or less of the respondents in all participating countries reported reading books at least once a week. Reading books has a strong effect on the level of literacy. Uniformly, more of those at Level 4/5 reported reading books at least once a week, with smaller numbers at each lower literacy level.

There are small differences in letter writing across the participating countries, with the exceptions of Poland and Sweden, who lag behind. At the same time, there are significant differences across literacy levels for all frequencies of letter writing.

One-third or fewer of each country's respondents said that they visited a library at least once a month. The IALS data suggest that the libraries are serving the segment of the population who are already highly skilled. In all countries, individuals at Level 4/5 were most likely to report frequent library visits, although in the Netherlands those at Level 3 reported using the library at almost the same frequency as those at Level 4/5.

Overall, adults in those countries where the average scores are the highest (notably Sweden and the Netherlands) also reported the greatest use of literacy-related tasks, and those in countries with the lowest scores reported the least use.

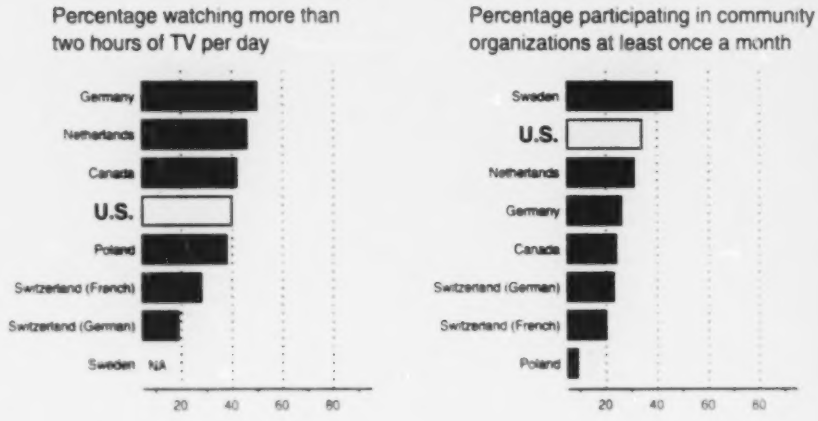
Activities related to literacy. The IALS examined a number of other practices that, while not direct evidence of literacy, were widely thought to be associated with it, or with its absence. Figure 6 shows the overall frequencies for television watching and community participation.[2]

[2]The data on overall frequencies are from unpublished computer runs conducted by Educational Testing Service.

The data provide support for the widespread public belief that television watching and literacy are somehow incompatible, although the relationship is complex. The IALS data demonstrate a noticeable — and negative — link between the two. Those most likely to watch television for significant periods of time are usually at lower literacy levels. About half of the respondents in Germany and the Netherlands reported watching television more than two hours per day.

There are also considerable differences in community participation across countries. Almost half of Sweden's respondents reported participating in a community organization at least once a month, compared to only 9 percent in Poland. While there are some country-to-country differences in how literacy relates to community participation, in all cases individuals in Level 1 are less likely to participate in community organizations.

Figure 6. Proportion of Population in Each Country Who Reported Engaging in Various Literacy Activities



Conclusions

The IALS has broken new ground in the understanding of literacy, its distribution, and its implications. When the project was conceived in 1991, there were reservations about the potential for comparing literacy proficiency across languages and cultures. In practice, the richness and validity of the data obtained exceeded even the expectations of the project's most enthusiastic supporters.

The information provided here and in the IALS report have made only a start in interpreting the IALS data. The main work of interpretation and application will need to be carried out within each of the participating countries. Some conclusions can already be drawn. The most important findings follow.

- ***Important differences in literacy skills do exist across and within nations***. These differences are large enough to matter both socially and economically. They concern not only the overall levels of literacy skill in particular countries, but also the distribution of those levels. In some IALS countries, most of the population clusters into a relatively narrow band of proficiency; in others, there is a wide range of difference between adults with low and high levels of literacy.

- ***Literacy skill deficits are found not just among marginalized groups, but affect large proportions of the entire adult population***. Over half of adults in some countries fail to move beyond the two basic levels (Levels 1 and 2) of literacy. There is a need to consider methods for improving the skills of entire populations as well as seeking remedial measures for selected groups.

- ***Literacy is strongly associated with life chances and use of opportunities***. While the processes that lead to this result are certainly complex, there can be no doubt about its importance to employment stability, the incidence of unemployment, and income. Moreover, in most countries the structural adjustment that is reducing the economic prospects of adults with low literacy skills is far from complete. Therefore, those with low literacy levels will have even fewer opportunities in the future.

- ***Literacy is not synonymous with educational attainment***. Not surprisingly, people with more education tend, on average, to have higher literacy levels. But the length of initial schooling and further education is shown to be only one factor contributing to literacy in adulthood — in two ways. First, in every country there are many cases of poorly educated people who perform well on the literacy scales, and a smaller but still significant number of highly educated people who perform poorly on the literacy scales. The implication is that although formal education yields an immense advantage, it is also possible for individuals to improve their literacy through their own efforts and behavior. Second, there are considerable differences between countries in terms of the likelihood that someone with a particular quantity of education will perform at a particular level. The implication is that schooling provides no more than a "start in life" when it comes to acquiring literacy skills, and it appears to provide a more effective start in some countries than in others.

- ***Literacy skills, like muscles, are maintained and strengthened through regular use***. Formal education systems provide only the raw material for adult literacy. The evidence shows that the lack of application of literacy in daily activities is associated with lower levels of performance. Some supportive contexts at home and at work seem to reinforce literacy practices

and applications better than others. One reason for optimism is that some areas of high employment growth in OECD countries, such as financial and other service sectors, tend to create environments that reinforce literacy. Others, such as manufacturing, may become better at doing so through restructuring. But the transition to information-based economies is not a smooth one, and a strong effort will be needed to ensure that literacy practices are improved within organizations of all kinds. The creation of environments that favor lifelong learning will require strong commitment from individuals, employers, and governments.

- ***Adults with low literacy levels do not usually acknowledge or recognize they have a problem.*** Survey participants at all literacy levels, when asked whether their reading skills were sufficient to meet their everyday needs, replied overwhelmingly that they were. For those designing programs to reduce the dependence of individuals with low literacy levels on others, this denial has important implications. ■

ETS Policy Notes is published by the ETS Policy Information Center, Educational Testing Service, Princeton, NJ 08541-0001 (609) 734-5694.

Internet: pic@ets.org

http://www.ets.org

Director, ETS Policy Information Center: Paul E. Barton

Editor: Richard J. Coley

Copyright © 1996 by Educational Testing Service. All rights reserved. Educational Testing Service is an Affirmative Action/Equal Opportunity Employer.

Educational Testing Service, ETS, and ® are registered trademarks of Educational Testing Service.

04202-02536 • Y66M6 • 024829 • Printed in the U.S.A.

NON-PROFIT
ORGANIZATION
ETS
US POSTAGE
PAID

BEST COPY AVAILABLE